

Recommended Cutting Conditions

(inch)

	Workpiece Material	Properties	Grade	Cutting Speed vc (SFM)	Depth of Cut		Feed per Tooth fz (IPT)	Cutting Mode
					ae	ap		
K	Gray Cast Iron	Tensile Strength ≤350MPa	MB4120	3280 (2295—4265)	≤ .8 DC	≤ .020	.003 (.002—.006)	Dry Cutting
N	Aluminum Alloys	Content Si < 5%	MD2030 MD220	8200 (6560—9840)	≤ .2 DC	≤ .118 (.020—.118)	.003 (.002—.008)	Wet Cutting
					≤ .5 DC	≤ .098 (.020—.098)		
					≤ .8 DC	≤ .079 (.020—.079)		
		Content 5% ≤ Si ≤ 10%	MD2030 MD220	8200 (6560—9840)	≤ .2 DC	≤ .118 (.020—.118)	.003 (.002—.008)	Wet Cutting
					≤ .5 DC	≤ .098 (.020—.098)		
					≤ .8 DC	≤ .079 (.020—.079)		
		Content 10% < Si < 15%	MD220 MD2030	1970 (1310—2625)	≤ .2 DC	≤ .118 (.020—.118)	.003 (.002—.008)	Wet Cutting
					≤ .5 DC	≤ .098 (.020—.098)		
					≤ .8 DC	≤ .079 (.020—.079)		
		Content Si ≥ 15%	MD220 MD2030	1970 (1310—2625)	≤ .2 DC	≤ .118 (.020—.118)	.003 (.002—.008)	Wet Cutting
					≤ .5 DC	≤ .098 (.020—.098)		
					≤ .8 DC	≤ .079 (.020—.079)		

(Note 1) Please adjust the depth of cut **ap** depending on the width of cut **ae**.

(Note 2) When using the long edge insert, please select the conditions depending on depths of cut (**ap**) excluding the length of the gate.